PATENT
2503-1186

IN THE U.S. PATENT AND TRADEMARK OFFICE

In re application of

Ezio BOMBARDELLI — Conf. 5416

Application No. 10/562,205 — Group 1655

Filed May 15, 2006 — Examiner Catheryne Chen

FORMULATIONS FOR THE TREATMENT
OF ARTHRITIS CONDITIONS

DECLARATION UNDER RULE 132

Assistant Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Ezio BOMBARDELLI, hereby declare as follows:

I am the inventor of the above-identified U.S. patent application. My relevant background and experience are set forth on the attached CV.

I have read the Official Action mailed March 13, 2007, and I am familiar with the present application. In reviewing the Official Action, there does not appear to be any appreciation for the superior efficacy in reducing pain, reducing stiffness, and improving physical function obtained by the claimed formulation.

I have performed the following experiments that compare the efficacy of each single component to the efficacy of the combination of components in the claimed formulation, i.e.,

represented by the composition of Example 1 of the present application.

One hundred and forty patients suffering from osteoarthritis of the knee were screened and randomly divided into seven groups of 20 patients each; the patients were treated orally twice a day for two weeks, with the following capsules, containing the relevant amount of active principles and *Enothera biennis* oil as excipient:

Group 1: Placebo	
Group 2: Salix rubra extract (25% in saligenin)	200 mg
Group 3: Boswellia senolee extract (20% in boswellic acid)	100 mg
Group 4: Green Tea extract (7% in procyanidinis)	100 mg
Group 5: N-Acetyl-glucosanine	100 mg
Group 6: Glucuronolactone	100 mg
Group 7: Composition of example 1	

At the beginning and at the end of the treatment the subjects answered the validated WOMAC - VA 3.0 questionnaire, containing a total of 24 visual analogue scales (100 mm each), five of which refer to pain intensity, two to stiffness and 17 to physical function (Bellamy et al, J Rheumatol 15, 1833-40, 1988).

Statistical analysis was carried out using the *Dunnet t test* based on the differences between the values of each parameter at day 0 and day 14.

Tab. 1: Mean values for efficacy outcome measures: Pain

Group	Day 0	Day 14	%variation
Group 1	44.1 +/- 6.5	45.1 +/- 6.9	22%
Group 2	43.6 +/- 5.9	37.3* +/- 5.4	-14%
Group 3	43.7 +/- 6.2	39.1* +/- 5.7	-11%
Group 4	43.5 +/- 6.1	41.1 +/- 6.0	-6%
Group 5	45.1 +/- 7.0	42.8 +/- 6.7	-5%
Group 6	44.9 +/- 6.7	44.5 +/- 6.8	-1%
Group 7	43.8 +/- 6.2	25.3** +/- 4.5	-42%

* p< 0.05; ** p< 0.001

Tab. 2: Mean values for efficacy outcome measures: Stiffness

Group	Day 0	Day 14	%variation
Group 1	42.4 +/- 6.0	44.1 +/- 6.9	4%
Group 2	42.0 +/- 5.9	35.3* +/- 5.4	-16%
Group 3	41.9 +/- 5.8	36.1* +/- 5.7	-14%
Group 4	40.3 +/- 5.5	39.1 +/- 6.0	-3%
Group 5	41.2 +/- 5.7	40.8 +/- 6.7	-1%
Group 6	42.7 +/- 6.1	42.5 +/- 6.8	0%
Group 7	42.8 +/- 6.2	23.2** +/- 4.5	-46%

* p< 0.05; ** p< 0.001

Tab. 3: Mean values for efficacy outcome measures: Physical function

Group	Day 0	Day 14	%variation
Group 1	43.8 +/- 6.4	44.0 +/- 6.8	0%
Group 2	42.8 +/- 6.1	35.2* +/- 5.3	-18%
Group 3	43.0 +/- 6.2	36.7* +/- 5.6	-15%
Group 4	43.4 +/- 6.3	40.3 +/- 5.9	-7%
Group 5	43.3 +/- 6.2	42.1 +/- 6.1	-3%
Group 6	43.6 +/- 6.4	43.5 +/- 6.7	0%
Group 7	43.1 +/- 6.3	23.8** +/- 4.6	-45%

* p< 0.05; ** p< 0.001

The above results show that the compositions of the invention are more effective than the compositions containing

only one of the active principles in reducing pain, stiffness and in improving the physical functions after 14 days.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Ezio Bombardelli

Date _____